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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark Henrik Sandstrom

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Mark Henrik Sandstrom

Apt 2604

700 -9 St SW

Calgary, AB T2P 2B5

CANADA

EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/938,014	Applicant(s) SANDSTROM, MARK HENRIK	
	Examiner Michael J. Moore, Jr.	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group 1 claims **1-8** in the reply filed on 11/2/2005 is acknowledged. Thus, claims **9-20** have been withdrawn from further consideration as being drawn to a non-elected invention. It is requested that Applicant cancel non-elected claims **9-20** in response to this Office Action.

Claim Objections

2. Claims **1, 2, 5, 7, and 8** are objected to because of the following:

Regarding claim **1**, on line 4, an objection is made to the use of the term "potentially". The use of this term constitutes optional language that does not limit the scope of this claim. Also, on lines 6 and 9, an objection is made to the use of the phrase "capable of". The use of this phrase constitutes optional language that does not limit the scope of this claim. See MPEP 2106, II, C.

Regarding claim **2**, on line 1, an objection is made to the use of the phrase "can be". The use of this phrase constitutes optional language that does not limit the scope of this claim. See MPEP 2106, II, C.

Regarding claim **5**, on line 2, the word "a" is missing between words "at" and "single". Also, on line 2, the word "the" before word "same" should be "a".

Regarding claim **7**, on line 1, an objection is made to the use of the phrase "can be". The use of this phrase constitutes optional language that does not limit the scope of this claim. Also, on line 3, an objection is made to the use of the term "potentially". The use of this term constitutes optional language that does not limit the scope of this

claim. See MPEP 2106, II, C. Also, on line 4, the word "of" is not needed after the word "between".

Regarding claim 8, on line 1, the phrase "The network of claim 1" should be "The network system of claim 1" to be more precise. Also, on line 2, an objection is made to the phrase "accordant to the definition of claim 1". It is unclear what definition this phrase is referring to. Also, on lines 3-6, the phrase "claim 1 networks" should be "claim 1 network systems" to be more precise. Lastly, on line 4, an objection is made to the use of the term "potentially". The use of this term constitutes optional language that does not limit the scope of this claim. See MPEP 2106, II, C.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Dai et al. (U.S. 6,246,692) ("Dai"). Dai teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim 1, "a network system interconnecting a set of packet-switching network elements" is anticipated by packet switching fabric 10 (network system) of

Figure 1 that interconnects packet transfer switching devices 12 (set of packet-switching network elements).

“The network system comprising a set of interface units, each interface unit interfacing with one of the packet-switching network elements interconnected by the network system and providing a connection of potentially variable capacity to the other interface units of the network system ” is anticipated by data ring input ports 16 and data ring output ports 20 (interface units) of Figure 1 coupled to packet transfer switching devices 12 (packet-switching network elements) within switching fabric 10 (network system) for receiving and transmitting data and data ring messages via corresponding data ring segments 18 (connections) as spoken of on column 5, lines 8-14.

“Each one of the connections capable of transporting data from its source interface unit to its destination interface unit and having an associated capacity and traffic load” is anticipated by data ring segments 18 (connections) that form source-destination channels with an allocated bandwidth (capacity) for transferring data (traffic load) via the data ring path as spoken of on column 5, lines 54-59 as well as column 6, lines 1-11.

Lastly, “the capacity of each connection controlled from its destination interface unit based at least in part on the traffic loads associated with the connections capable of transporting data to that destination interface unit” is anticipated by column 6, lines 11-13 which state that the amount of bandwidth (capacity) allocated for each source-destination channel is commensurate with the network link capacity of a destination network port (destination interface unit).

Regarding claim **2**, “wherein the capacity of a connection can be zero for a period of time” is anticipated by column 11, lines 46-50, which state that after a last burst of packet data in a channel is read out, the channel bandwidth (capacity) for that channel is released.

Regarding claim **3**, “wherein the traffic loads and the capacities associated with the connections between the set of interface units are dynamic variables” is anticipated by the dynamic allocation of data path bandwidth through each device of the switching fabric 10 spoken of on column 4, lines 7-13.

Regarding claim **4**, “where the capacities of the connections are cyclically optimized with a cycle time that is constant during regular system operation” is anticipated by transmission and reception of GET_RES messages via cycles of a control ring as shown in Figure 8B that are used to allocate initial bandwidth to new channels or modify (optimize) bandwidth (capacity) allocated to existing channels as spoken of on column 13, lines 16-22 as well as column 16, lines 47-61.

Regarding claim **5**, “wherein a number, up to all, of the interface units are physically located at single physical node or platform, or are attached to the same chassis” is anticipated by data ring input ports 16 and data ring output ports 20 (interface units) of Figure 1 coupled to packet transfer switching devices 12 (packet-switching network elements) within switching fabric 10 (network system).

Regarding claim **6**, “wherein one or more of the interface units are integrated with the packet-switching network elements they interface with” is anticipated by data ring input ports 16 and data ring output ports 20 (interface units) of Figure 1 coupled to

packet transfer switching devices 12 (packet-switching network elements) within switching fabric 10 (network system).

Regarding claim 7, "the network system of claim 1 that can be at least in part a sub-network of a multiuse or public network, with additional network elements, which do not actively participate in the operation of the thus created sub-network, potentially in pass-through mode in between of either the interface units or in between of the packet switching network elements and the interface units of the sub-network" is anticipated by packet switching fabric 10 (network system) of Figure 1 that interconnects packet transfer switching devices 12.

Regarding claim 8, "wherein one or more of the packet-switching network elements is another network system accordant to the definition of claim 1, and wherein these claim 1 networks interface with each other through regular interface units, thus allowing to cluster a number of claim 1 networks together, potentially with a hierarchical architecture where one claim 1 network serves as an interconnect network among a number of claim 1 networks, thereby contributing to network scalability" is anticipated by packet transfer switching devices 12 (packet-switching network elements) that interface with each other via data ring input ports 16 and data ring output ports 20 (interface units) of Figure 1 and provide scalability of the switching fabric as spoken of on column 1, lines 44-49.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tang (U.S. 6,195,332) and Lemieux (U.S. 6,631,128) are other references pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM

Seema S. Rao
SEEMA S. RAO 12/2/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600